Work Orde April-11-13 2:0.		590		*99590*								
Item ID: Revision ID:	D3023-1			Accept	*N900	040	100)*	Setup S	Start	*N:	S1*
	Back Panel								9	Stop	*N:	S2*
	4/22/13	Start Qty: 1.	•		Cust Item I	D:						
Required Date:	4/22/13	Req'd Qty: 1.	00 *1*		Customer:							-
Reference:								_		· ·		
Approvals:	Process Pla	an:	Date: \$-04- //	Tooling:	D:	ate:		j		Start	*N	R1*
	QC:		Date:	SPC (Y/N):	Da	ate:				Stop	*N	R2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp
Draw Nbr	Rev	vision Nbr										· · · · · · · · · · · · · · · · · · ·
D3023	Rev	/ A				`						
100				0.00								
100		FLOW WATER J	ET					ì	4	~·.		7MB-4-29
Waterjet		Memo	0	0.00						-		<u></u>
FLOW CNC Waterje			as per Dwg D3023									
<i>2</i> ०२५ .०३:	3	Prog I	Rev: A Rev: A aind direction along 28.100" ***					•	,		,	
		2-Deb	ourr if necessary									
110		QC2- Inspect parts	s off machine FAI/FAIB	0.00								
*11 ∩ *								1	6	•		JM13-4-25
QC .		Memo	0	0.00							·	

Memo

Quality Control

		į								DQA:	Date:	•
NCR: Y	es / No	1			WORK ORDER NON-O	ONF	ORN	/ANCE / UPI	DATE	QA Closed:	Date:	
Work Orde	r:		T - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part N NCR N	o	i			Rework Scrap Use-as-is Work Order Update	T	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other
Root			.,,	Descr	iption of work order update	Init	ial	Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief	Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data		1										
Equip/Tooling		1					İ					
Operator		1				ĺ						
Material		ļ										
Setup			}									
Other												
Process			1]						
Supplier												
Training												
Unapproved			<u> </u>			<u> </u>				<u> </u>		
						AULT (CATE	GORY	·			
Landin	g Gear	1			General					7	_	7
	Bending				Bend		rain			Ovalized		Pressure/Forced
	Centre N	lot Conce	ntric to	o/s	BOM/Route	\vdash	ardwa			Over/Under	tolerance	Temperature/Cure
1	Cracks	1		L	Broken/Damaged	\vdash		on Incomplete		Part Incorre		Weld
	Crushed	/Crimped	-		Burrs		2.253	ions Incomplete/l	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
1	Cuffs	1			Contamination	1		nance		Part Moved		
	Heat Tre	at			Countersink	\vdash	islabe			Positioned V		~
	Inspection	on Strip in	Tube	L	Cut Too Short	_	isread	I		Power Loss/	Surge	Other
[Ripples i	n Bend			Drill Holes	Of	fset					
	Torque \	Waves in I	Extrusio	n 🗀	Drawing		ut of C	Calibration				
[Turning	Sequence	!		Finish	Пог	ut of S	equence				
	Wave/T	wist in Tu	be		Folio	<u> </u> Ot	utside	Dimensions				

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Work Orde		590		*99590*								Page 2	 I
Revision ID:	D3023-1 Back Panel			Accept	*N900	040	100)*	Setup	Start Stop	*N: *N:	S1* S2*	
Start Date: Required Date: Reference:	4/22/13 4/22/13	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:							1 1 1
Approvals:	Process Pla	in:	Date:	0		ate:			Run	Start Stop	*N *N	R1* R2*	1 1
Sequence ID/ Work Center II 120 *120* QC Quality Control)	Operation Description QC8- Inspect parts - second Memo	ond check	Set Up/ Run Hours 0.00 27 0.00	Tool ID	Tool#	Plan Code	Accep Qty	ot Re Qt		Reject Number	Insp. Stamp	+
130 *130* Brake NC Brake NC		Form as per dwg Memo		0.00				_	 ·			S) 13 l	164
140 *140* QC Quality Control		QC5- Inspect part compl	eteness to step on W/O	0.00 2 3 3 3 3	3								

										DQA:	Date:	
NCR:	Yes / No				WORK ORDER NON-C	CON	NFORN	MANCE / UPDATE		QA Closed:	Date:	
				·	DISPOSITION			A		PARTMENT		
Work Orde	er:					,						
Part f	No				Rework Scrap Use-as-is		V	Machining Sm	nall Fab nishing	1	Water Jet d. Eng. Coor. ee/Packaging	Engineering Quality Other
NCR I	No				Work Order Update]		Large Fab Con	nposite		Supplier	
Root					ption of work order update		nitial	Action		Sign &		:
Cause	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data				,				÷				
Equip/Tooling	Ш											
Operator	Ш											
Material	Ш											· .
Setup			1									
Other	L										• .	
Process												,
Supplier												
Training					•							
Unapproved	<u> </u>					<u> </u>						<u> </u>
						AUL	T CATE	JORY				
Landi	ng Gear			<u></u>	General		۱	•	· .	۱	Γ]
	Bending				Bend	-	Grain		<u> </u>	Ovalized	<u> </u>	Pressure/Forced
·		lot Conce	ntric to (^{D/S}	BOM/Route	\vdash	Hardwa		-	Over/Under	 	Temperature/Cure
	Cracks			<u> </u>	Broken/Damaged	H		on Incomplete	 	Part Incorre		Weld
	—	/Crimped		<u> </u>	Burrs	-	•	ions Incomplete/Unclea	r	Part Lost/M		Wrong Stock Pulled
	Cuffs			.	Contamination	\vdash	Mainte		<u> </u>	Part Moved		* ~
	Heat Tre	at		·	Countersink	-	Mislabe			Positioned V		1
	l Inspection	on Strin in	Tube	i	Cut Too Short		Misread		j	Power Loss/	Surge · I	Other .

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

W	ork	Ord	er ID	99590
* *	U A A K	\sim 1 $^{\circ}$	~	//0/0

QC

Quality Control

99590

Page 3

April-11-13 2:05:47 PM *N900040100* Item ID: D3023-1 Accept Setup Start **Revision ID:** Stop Back Panel Item Name: Start Qty: 1.00 **Start Date:** 4/22/13 **Cust Item ID:** Required Date: 4/22/13 **Req'd Qty:** 1.00 *1* **Customer:** Reference: Run Approvals: **Process Plan:** Date: **Tooling:** Date: Stop QC: Date:__ SPC (Y/N): Date: Sequence ID/ Set Up/ Tool ID Reject Operation Tool # Plan Accept Reject Insp. **Work Center ID** Description Qty Number Stamp Qty **Run Hours** Code Identify as per dwg & Stock Location: 4 0.00 180 *120* 0.00 Packaging Memo Packaging 190 QC21- Final Inspection - Work Order Release 0.00 *100*

0.00

Memo

pl 13-05-1

										DQA:	Dat	e: .	~.1
NCR:	res / N	o			WORK ORDER NON-	100	NFORN	MANCE / UPDATE		QA Closed:	Dat	e:	
Mort Ord					DISPOSITION			AGAINST		PARTMENT/	PROCESS		
Work Orde	er:				Rework	1		Skid-tube Crosstube			Water Jet		Engineering
Part N	No:				Scrap Use-as-is		ı	Machining Small Fab			d. Eng. Coor. e/Packaging		Quality
NCR N	No				Work Order Update]	:	Large Fab Composite		, nespecti	Supplier		
Root				Descri	ption of work order update		nitial	Action		Sign &			
Cause	Date	Step	Qty	. (or Non-conformance	Ch	ief Eng	Description		Date	Verification	_	QC Inspector
Doc/Data											•		
Equip/Tooling.													
Operator													
Material		•											· .
Setup													
Other		.											•
Process			1								•		
Supplier		1							•				
Training													
Unapproved			<u> </u>	<u> </u>						<u> </u>			
				•	F	AUI	T CATE	GORY					
Landi	ng Gear		•		General		1			, ·	1		1 .
	Bendir	ng			Bend		Grain		<u> </u>	Ovalized	•		Pressure/Forced
	Centre	Not Conce	entric to	O/S	BOM/Route		Hardwa	re		Over/Under			Temperature/Cure
	Cracks	*			Broken/Damaged		Inspecti	on Incomplete	L	Part Incorred			Weld
	Crushe	ed/Crimped	l.		Burrs	L	1	ions Incomplete/Unclear	L	Part Lost/Mi	ssing		Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance		Part Moved			
	Heat T	reat			Countersink		Mislabe	led	_	Positioned V	Vrong		1
	Inspec	tion Strip ir	n Tube		Cut Too Short		Misreac	l		Power Loss/	Surge		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Drill Holes

Drawing

Finish

Folio

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Picklist Print

April-11-13 2:05:47 PM

Work Order ID:

99590

Parent Item:

D3023-1

Parent Item Name:

Back Panel

Start Date: 4/22/13

Required Date: 4/22/13

Page 1

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP C02.01.23Revised NC

IPP Rev:D 08-04-16 now water jet DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.032 2024-T3 .032 sheet		Purchased	No			100	sf	639.6522	2.8777	3.0291579 3.1		5	<u>m13-4-29</u>
	· ·			Location		Loc Qty	<u>L</u> c	oc Code					
				MAT022		639.6522							
				1182	243	32.4962							
				1185	523	141							
				1213	309	68.656							
				1230	096	27.6							
	٠.			1235	574	81.9							
				1249	987	288			120	1987			

NCR: Ye	es /. No]] 			WORK ORDER NON-	CON	FORN	MANCE / UPDATE		QA Closed:	Date:	
Work Ordei	r:) 			DISPOSITION			AGAINS	T DE	PARTMENT	PROCESS	
Part N	0.	1			Rework Scrap Use-as-is Work Order Update		N Therm	Skid-tube Crosstub Machining Small Fa noforming Finishir Large Fab Composit	ıb	(Water Jet J. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
NCR N	0	1			work Order Opdate			raige Faul Composi			Supplier	
Root		_			ption of work order update		itial	Action		Sign &	Verification	OC Inchastor
Cause	Date	Step	Qty		or Non-conformance	Chie	ef Eng	Description		Date	verification	QC Inspector
Doc/Data Equip/Tooling		1 1							•	·		
Operator			1 1									
Material		1						`.		·		·
Setup			1 1									
Other		i			,							
Process		. !										
Supplier	7	!										<u> </u>
Training		ı	.				• •					
Unapproved		1										
		1	L			FAULT	CATE	GORY		:		
Landin	g Gear	ı			General							
Γ	Bending	i			Bend		Grain	•		Ovalized		Pressure/Forced
Ī	Centre No	ot Concei	ntric to C	o/s	BOM/Route	·	lardwa	re		Over/Under	tolerance	Temperature/Cure
<u> </u>	Cracks	· i			Broken/Damaged	l lı	nspecti	on Incomplete		Part Incorred	ct .	Weld
<u> </u>	Crushed/	Crimped.			Burrs		nstructi	ions Incomplete/Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
<u> </u>	Cuffs	- I'			Contamination	-	Mainte	•		Part Moved		_
<u> </u>	Heat Trea	at			Countersink		∕islabe	led .		Positioned V	Vrong	
 	Inspectio	1	Tube	一	Cut Too Short	 	∕isread			Power Loss/	Surge	Other
<u> </u>	Ripples in				Drill Holes	-	Offset			.	- L	
	Torque W		xtrusion	,	Drawing	├ ──		Calibration				
<u> </u>	Turning S	1			Finish			equence				
-	Wave/Tw				Folio	-		Dimensions				

DQA:

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DART AEROSPACE LTD	Work Order: 90590
Description: Back Panel	Part Number: D3023-1
Inspection Dwg: D3023 Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X	First Article		Prototype
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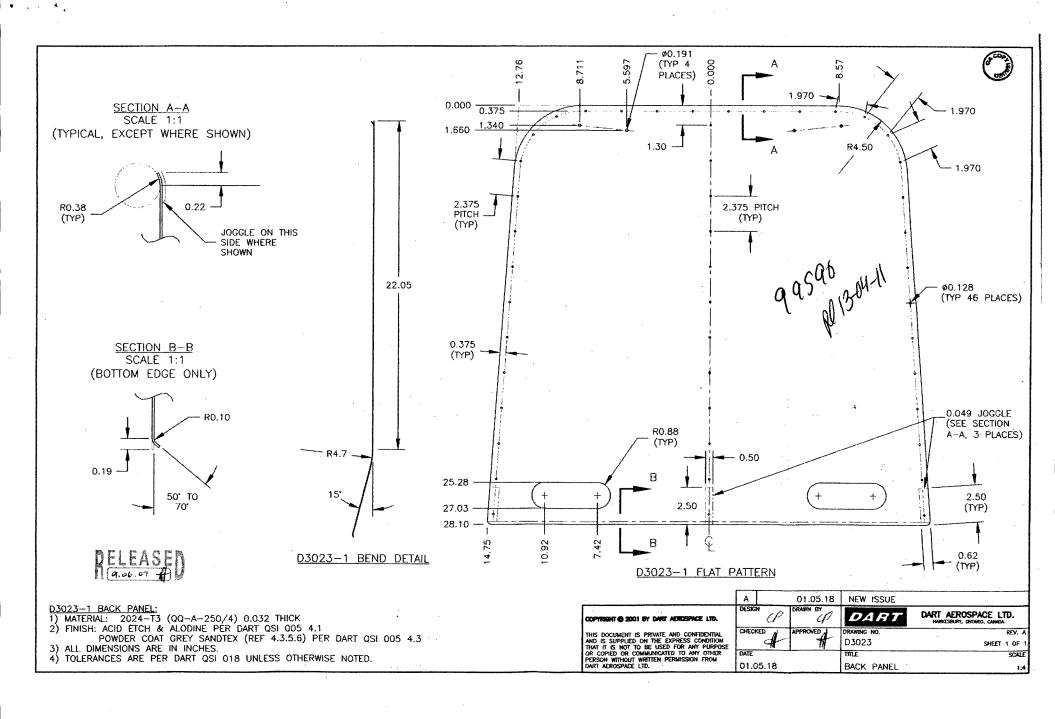
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.128	+0.005/-0.001	0.128"			v	Jkmoi
Ø0.191	+0.005/-0.001	0,191"	-		ν	JAMOI
1.660	+/-0.010	1.664"	T -		ν	
0.375	+/-0.010	0.378"	_		V	
1.340	+/-0.010	1.341"	- .		٧	
2.375	+/-0.010	2-372"	_		٧	
0.375	+/-0.010	0.378°	_		ν	
25.28	+/-0.030	25.28"	~		T	J/rmo6
27.03	+/-0.030	27.03"	1		T	
28.10	+/-0.030	28.10"			T	
1.30	+/-0.030	1.307"	-		V	
2.375	+/-0.010	2.371			V	
8.711	+/-0.010	8,7,5"	_		V	Produtos
5.597	+/-0.010	5.600	-		V	
8.57	+/-0.030	8.57"	_		V	
1.970	+/-0.010	1.970"	_		Ÿ.	
7.42	+/-0.030	7.42	-		>	
10.92	+/-0.030	10,927	-		ν	
14.75	+/-0.030	14.75	-	٠.	Т	
		,	OAU.			

Measured by:	Jm	Audited by:	*@	Prototype Approval:	N/A
Date:	13-4-29	Date:	13450	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	08.11.27	New Issue	KJ/EC	- 12

								DQA:	Date:			
NCR: Ye	s / No			WORK ORDER NON	I-CONFORI	MANCE / UPD	ATE	•				
								QA Closed:	Date:	·		
Work Order			DISPOSITION		AGAINST DEPARTMENT/PROCESS							
work Order.				Rework		Skid-tube Crosstube			Water Jet	Engineering		
Part No)			Scrap		Machining	Small Fab		d. Eng. Coor.	Quality		
				Use-as-is		noforming	Finishing	Rec/Stor	re/Packaging	Other		
NCR No). <u> </u>		•	Work Order Update	_	Large Fab	Composite		Supplier	J [_]		
Root	1	T		Description of work order update	Initial	Actio	on	Sign &				
Cause	Date	Step	Qty	or Non-conformance	Chief Eng	Descri	ption	Date	Verification	QC Inspector		
Doc/Data												
quip/Tooling			.					·				
Operator		:										
Material				Ï	· .							
Setup	7		1			-						
Other					i	,						
Process									ý.	•		
Supplier									,			
Training							·			·		
Unapproved					<u> </u>	·				·		
					FAULT CATE	GORY						
Landing	g Gear		·	General			٠	1				
	Bending Bend					Grain				Pressure/Forced		
	Centre N	ot Conce	ntric to C	O/S BOM/Route	Hardwa	ire	· L	Over/Under tolerance Part incorrect		Temperature/Cure		
	Cracks			Broken/Damaged	Inspect	ion Incomplete				Weld		
	Crushed/Crimped Burrs					ions Incomplete/U	nclear	Part Lost/Mi	ssing	Wrong Stock Pulled		

L	Centre Not Concentric to 0/3	L] BOW/ Noute		Inardware	_	Jover/Onder tolerance		remperature/cure
	Cracks		Broken/Damaged		Inspection Incomplete		Part Incorrect		Weld
	Crushed/Crimped		Burrs		Instructions Incomplete/Unclear		Part Lost/Missing	L	Wrong Stock Pulled
	Cuffs		Contamination		Maintenance		Part Moved		
	Heat Treat		Countersink		Mislabeled		Positioned Wrong		
	Inspection Strip in Tube		Cut Too Short		Misread		Power Loss/Surge		Other
	Ripples in Bend		Drill Holes		Offset				
	Torque Waves in Extrusion		Drawing		Out of Calibration				
	Turning Sequence		Finish		Out of Sequence				
	Wave/Twist in Tube	Г	Folio	Г	Outside Dimensions				



											DQA:	Date	;	
NCR: Y	es	/. No				WORK ORDER NON	-COI	NFORM	/ANCE / UP	DATE	QA Closed:	Date	:	
Nork Orde	ŗ.		· · · · · · · · · · · · · · · · · · ·			DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. NCR No.						Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other	
Root	T				Descr	ription of work order update		Initial	Ac	tion	Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector	
oc/Data quip/Tooling perator Material etup other rocess upplier raining napproved												•		
							FAUL	T CATE	GORY					
Landin	_		-		_	General	_	1		_	-	_	7 , .	
	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion					Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset			Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
}		Turning S			-	Drawing Finish	-	Out of Calibration Out of Sequence						

Outside Dimensions

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Wave/Twist in Tube

Folio